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ABSTRACT

The report describes an attempt to develop a cost-effective/program-effective service delivery model for providing special education to mildly handicapped students in Bellevue, Washington. Objectives include: needs assessment; analysis of delivery system options and fiscal resources; and establishment of delivery system priorities, evaluative criteria, and implementation plan. Analysis of student needs was guided by a model oriented to the least restrictive environment and a continuum of 12 service delivery types. Among findings reported are that teachers indicated that approximately one-third of the types of service delivery options needed were those generally described as occurring in the mainstream, and that mildly handicapping conditions accounted for 88 percent of the sample. (Data are also presented on needed services by handicapping conditions, percentage of time needed per delivery service type by handicapping condition, and staff allocation.) Two pilot projects designed to provide less restrictive settings are described, with information on proposed evaluation strategies for each. (CL)

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TITLE: COST-EFFECTIVE/PROGRAM-EFFECTIVE
SPECIAL EDUCATION PROGRAM DELIVERY

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COUNCIL FOR EXCEPTIONAL CHILDREN

61ST ANNUAL CONVENTION

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TABLE OF CONTENTS

I. INTRODUCTION.	1
II. BACKGROUND.	2-3
III. PROCEDURAL PLAN	4-6
IV. STUDENT NEEDS DATA COLLECTION ACTIVITY.	7-15
V. ALTERNATIVE SERVICE DELIVERY SYSTEMS.	16-17
VI. EVALUATION.	18-20
VII. SUMMARY.	21

I. INTRODUCTION

During the 50's and 60's, students with mild academic handicaps were increasingly assigned to special classes. One argument for special class placement was that the academic needs of these students could be better met in smaller classes with specially trained teachers and specially designed curriculum materials. It was also felt that special classes improved the social development and self-esteem of handicapped students.

In the late 60's, educators began to question the effectiveness of placing mildly handicapped students in special classes. Actual research was conducted to demonstrate whether or not special class placement was more effective. The results of the study by Calhoun and Elliott in 1977 indicated that placement in regular classes had a more positive effect on the achievement of mildly handicapped students than did special class placement. Budoff and Gottlieb (1976) found no differences in achievement between students placed in part-time resource programs or full-time special classes. Thus, there appears to be no evidence that special class placement is superior to regular class placement for the achievement of students with mild handicaps.

With respect to self-esteem, findings of studies which compare the educational outcomes of the mildly handicapped students in the segregated special class to the educational outcomes of education in a regular classroom with varying kinds of support indicate that the regular class promotes better social-emotional outcomes.

Students involved in a study by Calhoun and Elliott in 1977 were found to have more positive self-concepts than those assigned to special classes. In a study conducted by Meyerowitz in 1962, it was found that students in regular classes endorsed fewer self-derogatory statements than did students in the special class. In 1967, Carroll conducted a study intended to compare the development of self-concept in a segregated class as compared to a program where students were integrated into regular classes part-time. The partially integrated students showed higher self-concepts than did the segregated students. Gampel, Gottlieb and Harrison (1974) addressed the behavior of integrated or segregated EMR students. They found that the behavior of integrated special students was more similar to the behavior of nonhandicapped students than it was to the behavior of the segregated students.

Given the fact that most districts are providing segregated educational opportunities, and, in light of P.L. 94-142 mandates to provide programs in the least restrictive environment, it seems necessary to evaluate the effectiveness of our current pull-out approaches and develop a continuum of special services for mildly handicapped students. Deno, in an article published in 1970, proposed that "special education conceive of itself primarily as an instrument for facilitation of educational change and development of better means of meeting the learning needs of children who are different; and that it organize itself to do that kind of educational services job rather than organize itself as primarily a curriculum and instruction resource for clientele defined as pathologically different by categorical criteria."

II. BACKGROUND

Legislative action mandating changes in the funding distribution system has had a significant impact on the delivery of services to handicapped students in Washington state. Prior to school year 1980-81, handicapped students generated state monies for the local school district only if they were receiving services in a self-contained classroom or in a resource room. The obvious result of that type of funding mechanism was that all school districts providing services to eligible handicapped students did so by either placing those students in a self-contained classroom or in a resource room. The state implemented a different funding distribution in the fall of 1980, following a two-year developmental plan. The new funding formula produced a revenue allocation which blends both basic education and handicapped excess cost allocations into one amount. The formula generates instructional/therapy staff, assessment staff, and communication disorders specialists (i.e. speech pathologists) based upon the number of eligible handicapped students, including preschool handicapped students.

The next element of the formula, and the one which has the most significance with regard to the project described herein, calls for identification of enrolled handicapped students according to the severity of educational delay. For example: Group A students are those with severe educational delays and Group D students are those with mild educational delays. Group B and C students fall in between and speech impaired (i.e. communication disordered) students are a separate category. The severity levels are applied to all categories except the communication disordered. The percentage of students in each handicapping condition assigned to a particular severity level was determined via a field test study of the formula, and therefore represents a statewide sample, but not specifically any particular local school district. There are other elements in the formula to deal with the allocation of other staff, but rather than distract from the focus of this paper, suffice it to say that those two elements opened an avenue for local school districts in Washington to expand the options available to handicapped students in terms of where they may or how they may receive services. Districts, for the first time, found that they could "legally" serve students using a variety of approaches and environments. This has particularly significant ramifications when the needs of mildly handicapped students are addressed.

The Bellevue School District provides special education to approximately 1,550 students, or 8.4 percent of the district's total student population. These students range in age from 18 months to 21 years and represent 14 handicapping conditions. Special education for these students ranges from residential settings to those programs available in the district, such as full-time special classes, part-time special classes or regular classrooms with assistance from special-education staff. Related services such as speech, physical and occupational therapy; counseling, and interpreters for the hearing impaired are also provided.

The traditional program the district has provided for special-education students can best be described as a "pull-out" approach. That is, students are removed from the regular classroom, and in some cases from their neighborhood school, to receive special education. There are basically two pull-out approaches. The first is a full-time special class. In this setting, the focus is on teaching students basic skills. Generally, the instructional methods and materials are very different from those used in regular classrooms. The second type of pull-out approach is that part-time special class. In this approach, students are provided special instruction in their weaker areas such as reading, mathematics or writing. This is provided in addition to instruction in those areas

in their regular classes. The instructional methods are very individualized, but the curriculum and materials closely resemble or are the same as those used in the regular classroom. Students served in these part-time special classes are now spending the majority of their educational day in regular classrooms with nonhandicapped students.

For many students, this pull-out approach will continue to be the most educationally appropriate and cost-effective way to meet their special needs. As described, there has been increasing controversy regarding the effectiveness of this approach for many mildly handicapped students, especially if those students are removed from their regular classes for a large part of the day. Research cited earlier suggests that the pull-out approach does not produce as much educational progress as one might expect, given the resources it requires. There is also strong evidence to suggest that the practice of pulling out mildly handicapped students from the regular classroom has negative effects on the self-esteem of handicapped students when they see themselves as "different." This evidence also indicates that the achievement of these students taken from the regular classroom may be adversely affected because teachers lower their expectations of them.

However, even when mildly handicapped students are placed in regular classrooms for a major part of their instruction, assistance needs to be provided to the regular classroom teachers to help them meet the needs of those students. The concern of teachers and parents that the education of the other students in the class might be adversely affected by the attention that the handicapped students require or by a general lowering of classroom standards must also be considered. Some research and experience suggest that the educational performance of all students in a regular class can be enhanced by a variety of approaches, if the right conditions and support are provided.

The Bellevue School District was given the opportunity to address these concerns, how to most effectively meet the needs of mildly handicapped students, through the awarding of a grant funded by PL 94-142 discretionary monies by the Office of the Superintendent of Public Instruction.

III. PROCEDURAL PLAN

The primary goal of the project was to develop a cost-effective/program effective service delivery model. The objectives to achieve that goal were as follows:

- Objective 1: To document handicapped students' special service needs.
- Objective 2: To analyze the fiscal resources available.
- Objective 3: To analyze delivery system options.
- Objective 4: To establish delivery system priorities.
- Objective 5: To establish evaluation criteria.
- Objective 6: To establish a plan for implementation of a three-year cost-effective service delivery model.

Rather than detailing a lengthy description of the multitude of activities which occurred, the following calendar of events overviews generally the activities leading to implementation of pilot projects.

- July-August: Establish project goals and objectives
Develop procedural plan.
Initiate ongoing review of optional delivery systems (research, district programs, state programs, national programs).
- September: Introduce project to special education staff.
Administer staff survey to obtain input from special education staff.
Visit special education programs district-wide.
Continue review of optional delivery systems.
- October: Continue district program visitations.
Develop data collection system to be used to document students' special service needs.
Administer staff survey to obtain input from support staff (i.e. Nurses, OT's, PT's, CDS's, and Psychologists.
Establish Special Needs Advisory Council and Parent Advisory Council (SNAC/PAC).
Inservice special education staff via written communication.
Initiate analysis of fiscal resources available to the Bellevue School District.
- November: Provide a summary of optional delivery systems reviewed to date.
Continue analysis of fiscal resources.
SNAC/PAC review of project activities/program visits.
- December: Continue review of optional delivery systems.
Summarize fiscal analysis.
SNAC/PAC review of project activities.
- January: Provide inservice training to all special education staff to introduce the student needs data collection system.
Implement student needs data collection.
SNAC/PAC review of project activities.

February: Complete student needs data collection.
Initiate analysis of data.
SNAC/PAC review of project activities.

March: Summarize student needs data.
Summarize optional delivery systems information.
SNAC/PAC review of project activities.

April: Synthesize data collected.
Establish program delivery priorities for 1982-83.
SNAC/PAC review of project activities.

May: Summarize program activities for community as well as for district staff.
Present program change considerations and identify pilot projects.
SNAC/PAC review.

June: Finalize operational plan for school year 1982-83 including phased implementation of pilot projects.

In addition to managing the various activities to reach an anticipated point of closure as described by the project goals and objectives, a major undertaking was to facilitate and encourage participatory decision-making. That is, an unstated goal was to avoid administrative isolationism.

Two advisory councils were established in an effort to achieve that goal. One of those, the Special Needs Advisory Council (SNAC) was comprised of district staff representing regular education, special education, support services, and building administrators. Elementary and secondary programs were represented as well. The Parent Advisory Council (PAC) was comprised of parents representing all segments of the special education program. An attempt was made to approximate relative percentages of the various handicapping conditions. For example, there were more parents of specific learning disabled (SLD) students than other categories. The charges to SNAC/PAC were: 1) to review project activities; 2) to serve as a communication link to the district and to the community; and 3) to make recommendations to district administration based on communication with their respective constituencies.

In order to provide the advisory councils and district personnel with a basis for input and decision-making, a concerted effort was made towards developing a communication process to obtain input as well as to "educate" those entities as to the information obtained via the various activities. In addition to staff meetings, group discussions, and monthly updates via a newsletter, discussions were held with the education association, the principals' groups, and upper level administrators. The school board was also addressed and recommendations as well as approval were obtained.

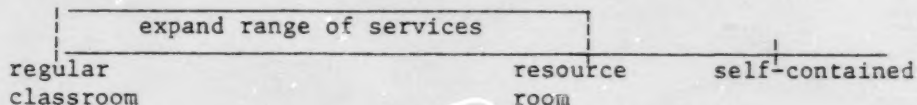
Although the attempts were in earnest, the process ultimately was somewhat slowed in that the barriers to change were greater than the efforts expended. Midway through the process it was necessary to articulate more concisely the parameters of the process as well as the assumptions upon which anticipated outcomes were based.

Parameters

1. We will not be able to spend more money than the current budget allows.
2. We need to attempt to reduce our total expenditures because we cannot assume that the district will continue to subsidize the program at the current level.
3. There is nothing intended as part of the project to reduce staff.
4. There is a commitment to retrain staff as necessary.
5. There is a commitment to provide building inservice as necessary.
6. There is a commitment to provide a wider range of services to allow more flexibility in programming for special needs learners.

Assumptions

1. Changes in service delivery will occur, but change will occur systematically and gradually per a three-year operational plan which will describe a phased implementation approach.
2. The focus of change will be directed toward mildly handicapped students to offer more options for service along a continuum:



3. Some current service delivery models will continue.
4. The number of self-contained (full-time) placements for mildly handicapped students will decrease.
5. More special needs learners will be served in their home schools.

Renewed discussions in February with the various entities about the parameters and assumptions then allowed the process to continue. However, ultimately the timelines for completion of Objective 4 (to establish delivery system priorities) were delayed. It was necessary to allow more time than anticipated for staff and community review of the data.

Further, finalization of the change process (Objective 6: to establish an implementation plan) was delayed to allow for a broader based review by the community and the district as well as to allow for additional awareness for principals and regular teachers to occur. That delay also allowed for better interface with other district studies such as grade reorganization.

The year long efforts resulted in the beginning of a change process in Bellevue's special education program. The implementation of change via pilot projects has been continued for school year 1982-83, and those will be described in Section V.

IV. STUDENT NEEDS DATA COLLECTION

The purpose of the data collection activity was to provide the basis for establishing service delivery priorities for special needs students. It was the intent to begin to expand the continuum of services available to those students and thus move towards greater flexibility in providing needed services.

The data collection activity was set up to determine needed services by:

- 1) considering a broad spectrum of service delivery models, some of which were new to the district, and some of which were currently used only in a limited way;
- 2) using a Least Restrictive Environment Decision Model to select the service delivery system which is both least restrictive and most appropriate for the student; and
- 3) determining how much time is needed on the part of special education personnel to provide the selected service.

Because what is the "least restrictive" and "most appropriate" service for a student may differ depending on the student's functioning level in any given subject, the decision was made to look separately at each subject a student takes and choose the appropriate service delivery system for that subject. For example, a regular math class may be appropriate for a student, but the same student can take regular spelling only if provided special education assistance, and, further, must have a special curriculum for reading. That same student may also need some indirect assistance in the form of consultation with the regular teacher to assure adequate progress in science or social studies. The least restrictive appropriate environment varies with each subject, and, therefore, so does the type and amount of special education involvement.

The data collection activity was designed to collect information on new service delivery systems while placing students in the least restrictive service delivery type. In the past, the student's program (i.e., the service delivery system(s) used with a student) has been dictated by what system/models were in effect in the district--for the most part, self-contained or resource classrooms. Special education teachers, therefore, were asked to consider a range of services which required varied degrees of involvement by certificated and non-certificated special education staff. That is, at one end of the continuum students would require no special education for a given subject, but might also require a special education class using a unique curriculum, a service option at the other end of the continuum. In between those extremes would be a spectrum of services, including materials support, non-certificated assistance, indirect support, and classroom instruction which would supplement regular classroom work. Obviously some of those services would be "more restrictive" than others. The key for determining a particular option was to consider all service options, beginning with the least restrictive.

To assist staff in the systematic selection of service delivery options, the following LRE Decision Model was presented as a guide:

THE LRE DECISION MODEL

1. The least restrictive environment is determined for each subject area.

THE KEY IS TO CONSIDER EACH SERVICE OPTION STARTING WITH THE LEAST RESTRICTIVE AND MOVING TOWARDS THE MORE RESTRICTIVE.

2. Steps:

- #1: Ask, "Can this student make adequate progress in this subject if placed in the regular classroom?"

If the answer is "Yes," the least restrictive service delivery option (the regular classroom) has been chosen.

If the answer is "No," ...

- #2: Ask, "Could adequate progress be made in a regular supplemental program (such as Title I)?"

If "No." proceed through the list of service options (p.9) until you can answer the question affirmatively, i.e., "Yes, the student can make adequate progress if provided this service type."

*****DO NOT BE RESTRICTED IN YOUR CHOICE OF SERVICE DELIVERY SYSTEM BY THE FACT THAT THE SYSTEM IS NOT CURRENTLY AVAILABLE IN THE DISTRICT OR IN YOUR SCHOOL.*****

3. Remember that there are several variables or constraints which might influence your selection of a delivery system as appropriate to that student for that subject:

- behaviors, independent work skills, attitude, peer interactions
- current level of functioning, rate of learning
- ability to comprehend orally, follow directions, participate in discussions, etc.

4. Repeat steps 2 and 3 for each subject area.

Historically in the district all records of time spent by special education personnel in providing services to students was only the time spent by the student in the resource or self-contained classroom. No data had been collected on consultation time, materials, adaptation time, and so on. So in order to determine how much time would be needed on the part of special education personnel to provide the student with the appropriate delivery system, staff were asked to estimate the time spent to provide a special education service regardless of what type of service was to be

provided. Specifically, the teachers were asked to estimate minutes per week of required special education time rather than reporting the amount of time a student spent in a particular classroom for a given subject.

The twelve service delivery types ranging from least restrictive to most restrictive selected for use in the activity were as follows:

SERVICE DELIVERY TYPES	CODE NO.*
REGULAR EDUCATION, with NO special education services	21
Regular Education SUPPLEMENTAL Class, e.g., Title I reading, math tutors, etc., with NO special education services	22
Regular Education WITH MATERIALS/EQUIPMENT SUPPORT - e.g., to visually or orthopedically handicapped	23
Regular Education WITH MATERIAL ADAPTATION SUPPORT - e.g., audio-tapes, multi-media or multi-sensory materials, etc.	24
Regular Education WITH NON-CERTIFICATED SUPPORT; i.e., AIDES	25
Regular Education WITH INTERPRETER SUPPORT for the deaf and hard of hearing	26
Regular Education WITH PEER TUTOR OR VOLUNTEER SUPPORT	27
Regular Education WITH OTHER NON-CERTIFICATED SUPPORT	28
Regular Education WITH SPECIAL EDUCATION CERTIFICATED SUPPORT, such as: education specialist, itinerant teacher, consulting teacher, behavior specialist, psychologist, etc., i.e., having <u>minimal</u> involvement in direct instruction, primary responsibility to consult or assist in development of instructional or management program, monitoring, etc.	31
SUPPLEMENTAL SPECIAL EDUCATION - using regular curriculum and supplementing regular classroom placement, in a special education room/place; regularly scheduled; students functioning close to grade level (in that subject).	41
SUPPLANTIVE SPECIAL EDUCATION - using special, adapted materials and/or strategies which approximate regular curriculum (e.g., phonics); in a special education classroom/place; regularly scheduled; student functioning significantly deficit below grade level (in that subject).	42

ADAPTIVE SPECIAL EDUCATION - non-standard or non-academic based instruction, such as feeding, self help, survival skills, etc., for that subject.

Note that service delivery types described in codes 21 through 28 do not require certificated special education involvement.

In addition to the data collected from the teaching staff, additional data were collected from other certificated support staff in terms of minutes per week of required services.

The data collection activity was accomplished by first providing training to all staff in the use of the data collection form, which was designed for computer analysis. Following the initial training sessions, small work sessions in a number of locations in the district were set up to assist teachers in form completion. Teachers were instructed to bring IEP's, class lists, student schedules, and the instruction manuals which had been disseminated in the earlier sessions. Most teachers were able to complete the forms on all of their students during the hour long sessions. However, all forms were completed in the ten days allotted for the activity.

There were a number of outcomes anticipated from this activity:

- 1) Quantification of student needs to determine staff required via given delivery systems;
- 2) Comparison of staff generated by the state handicapped funding distribution system to the level of staffing that would be supported by the state block grant funds for severely behaviorally disabled, specific learning disordered, and communication disordered, by program type, etc.
- 3) Determination of what type of staff and where to place them.
- 4) Determination of how to assign "value" factors to students and "time" or "ratio" factors to teachers to determine how to place students as well as staff.
- 5) Estimation of potential impact on transportation costs with less bussing of handicapped students.

Although not all of those outcomes were realized, useful data were obtained which will provide the foundation for further study. Some of that data will be discussed here.

There were a total of 1,555 student data forms completed and those forms represented:

- 88 preschool/kindergarten handicapped students
- 303 students at grades 1-3
- 461 students at grades 4-6
- 397 students at grades 7-9
- 303 students at grades 10-12
- 3 students with missing information

*Code numbers are included for reference only and will be utilized during the data outcome discussion which follows.

Table I displays the total number of students distributed across the handicapping conditions.

TABLE I

H/C Conditions	Total #	H/C Conditions	Total #
Severe/Profound	7	SRD	113
Mod. MR	41	D/B	1
Mild MR	58	SLD	919
Dev. Handic.	62	OH	15
Visually Handic.	2	Multi	74
Deaf	12	CD	182
HOH	20	Missing	1
Health Imp.	48	TOTAL	1,555

Distribution by Handicapping Condition

The data showed that teachers indicated that approximately one-third of the types of service delivery options needed by special needs students were those generally described as "occurring in the mainstream," (e.g. aide services in the regular classroom, materials adaptation, tutors, support/consultants, teachers, etc.).

The students generally considered to be "mildly handicapped" for purposes of the study, were those students identified as specific learning disabled (SLD), severely behaviorally disabled (SBD), mildly mentally retarded (Mild MR), and health impaired (Health Imp.). Those handicapping conditions accounted for 88 percent of all the students in the sample.

Table II displays the percentage of needed services for those specific handicapping conditions distributed across all service delivery options.

TABLE II

Percentage of needed services for specified handicapping conditions distributed across all service delivery options. These handicapping conditions account for 88% of the students in the sample.

Handic. Cond.	Codes 21 through 31	Code 41	Code 42	Code 43
SLD + SBD	38%	32%	29.5%	.5%
SLD	37%	33%	29 %	< 1 %
SBD	41%	23%	34 %	2 %
Mild MR	36%	8%	45 %	11 %
Health Imp.	38%	14%	44 %	< 5 %

To clarify Table II, the teachers reported in terms of numbers of services along with the time required. For example, teachers reported that 1,031 SLD and SBD students need a total of 1,707 services. Thirty-eight percent (38%) of those needed services for SLD and SBD students could be delivered via service delivery types described in codes 21 through 31, thirty-two percent (32%) via code 41, twenty-nine and a half percent (29.5%) via code 42, and one-half percent (.5%) via code 43. (See pages 9-10 for description of codes.)

Note that there was little variation in the need for service options 21-31 across handicapping conditions, whereas option 41 (use of regular education curriculum in a special education room) was clearly more desirable for SLD and SBD students than the other categories.

These percentages should not be construed to mean that the same percentages of staff time should be given to mainstream supports (i.e. options 21-31). Rather, it points to the need to broaden existing service delivery options (primarily options 41-43).

Table III displays the percentage of needed services for specified handicapping conditions for service options 25 (non-certificated support in regular education) and 31 (certificated support with minimal direct instruction for students in regular education) by grade.

TABLE III

Percentage of needed services for specified handicapping conditions for service delivery types described by codes 25 and 31, by grade.

Handic. Cond.	Codes 21-31	Codes 25 and 31			
		Grades 1-3	Grades 4-6	Grades 7-9	Grades 10-12
SLD + SBD	38%	75%	60%	73%	58%
SLD	37%	58%	60%	93%	56%
SBD	41%	100%	67%	67%	73%
Mild MR	36%	60%	50%	88%	50%
Health Imp.	38%	63%	50%	80%	61%
SLD + SBD + Mild MR + Health		73%	60%	87%	58%

Nearly three-fourths (3/4) of the new service delivery needs of primary age children were aide or consultant assistance in the regular classroom for the mildly handicapped. That compared to sixty percent (60%) in the intermediate grades, eighty-seven percent (87%) in junior high and fifty-eight percent (58%) in high school.

More important than percentage of service types needed was the time staff estimated that students would need of a service type. For example, Table II showed that by TYPE of service needed, SLD students needed thirty-seven percent (37%) in mainstream options (codes 21-31) and only twenty-nine percent (29%) in specialized curriculum (code 42). It would be fallacy, however, to assign only twenty-nine percent (29%) of the SLD staff to special curriculum (code 42) for as Table IV below indicates slightly over fifty-one percent (51.73%) of the time SLD students spend in education services should be with specialized instruction (code 42), compared to almost sixteen and a half percent (16.46%) for codes 21-31 inclusive. The significance of the percentage of TYPES of service needed was to indicate the importance of expanding service delivery options. The significant data for staff planning purposes relates to the time data.

TABLE IV

% Time Needed per Service Delivery Type by Handicapping Condition (report h)
(% time = total time per delivery code divided by total time needed by HC group)

HC Category	#Students	% time per service code											
		21	22	23	24	25	26	27	28	31	41	42	43
Severe MR	7	-0-	-0-	-0-	-0-	1.25	-0-	-0-	-0-	0.08	-0-	20.81	77.86
Mod. MR	41	-0-	-0-	-0-	-0-	21.12	-0-	23.93	-0-	12.51	0.43	29.99	12.01
Mild MR	58	-0-	-0-	-0-	1.46	1.71	-0-	0.15	0.32	3.24	4.94	76.25	11.93
Dev. Delayed	62	1.95	-0-	-0-	-0-	0.14	-0-	-0-	-0-	0.58	7.03	43.96	46.34
Vis HC	2	-0-	-0-	-0-	41.35*	-0-	-0-	3.52	-0-	-0-	20.67	34.46	-0-
Deaf	12	-0-	-0-	-0-	-0-	-0-	26.43	-0-	-0-	8.68	8.42	41.7	14.77
Hard of Hrg.	20	12.43	-0-	-0-	-0-	13.19	9.72	5.27	0.11	7.25	19.92	42.2	-0-
Health Imp.	48	0.03	0.30	0.50	0.62	2.52	-0-	0.32	0.23	3.94	13.1	72.54	5.91
SBD	113	0.47	0.16	-0-	0.11	1.65	-0-	0.26	2.66	10.22	31.91	51.89	0.68
Deaf/Blind	1	-0-	-0-	-0-	-0-	-0-	-0-	-0-	-0-	-0-	-0-	50.0	50.0
SLD	919	0.04	0.12	0.09	1.98	5.12	-0-	1.35	1.24	6.52	31.17	51.73	0.62
OH	15	-0-	-0-	-0-	-0-	-0-	-0-	-0-	-0-	5.49	7.33	82.54	4.64
Multi	74	-0-	-0-	-0-	11.14	10.92	-0-	0.03	-0-	3.87	6.68	54.20	35.0
TOTAL	1,372	.23	.10	.06	1.44	3.52	.64	.94	.98	5.71	22.74	54.68	9.17

* Probably should have been entered in code 23.

The data on moderately retarded was interesting especially when compared to the mildly retarded. Staff felt that with adequate aide and tutor/volunteer time (codes 25 and 27) those students could spend approximately forty-five percent (45%) of the school week in regular classrooms. Staff also indicated that those students would require certificated support if placed in regular education (code 31).

No consulting time (code 31) was suggested for visually handicapped, however, massive materials support was.

Table V demonstrates how staff allocation could be determined. Certificated and non-certificated services were separated and percent of time recalculated.

TABLE V

% Minutes to Total Certificated or Non-Certificated Time					
	Code	Total District	High School	Junior High	Elementary
Non-Cert.	23	.80%	.10%	.54%	.68%
	24	18.98%	2.26%	4.24%	18.0 %
	25	46.51%	18.58%	72.36%	50.08%
	26	8.43%	19.40%	11.07%	7.60%
	27 non-cost	12.38%	56.69%	10.56%	7.23%
	28	12.91%	2.97%	1.22%	16.42%
Total Minutes		71,296.5	7,345.45	4,262	54,095
Cert.	31	6.19%	17.84%	6.25%	4.79%
	41	24.64%	3.68%	33.33%	23.12%
	42	59.23%	76.89%	59.80%	61.29%
	43	9.93%	1.58%	.62%	10.80%
Total Minutes		868,839.5	47,326.5	249,522	427,309.5

For the district as a whole almost ninety-four percent (93.8%) of the special education certificated teacher services would take place in a special room (codes 41, 42, and 43 totaled). Forty-six percent (46.51%) of non-certificated services should come from aides (code 25). The highest percentage (17.84%) of consultant time (code 31) was indicated at the high school level.

What has been presented here is a brief overview of the data obtained via the data collection activity. In fact, considerable work is still needed to translate the data into an effective tool for staffing management.

For example, a point system or weighting system could be developed based on service codes which would reflect cost. That is, because the student: teacher ratio for code 31 is less than code 41, which is less than code 42, which is less than code 43, weights could be assigned. For example, a 3 to code 31, 4 to code 41, 5 to code 42, and 6 to code 43, and a 1 to codes 23-25, .5 to codes 27 and 28, and 2 to code 26. Those weights would reflect (A) the relative cost

of aide time (codes 23-25) to certificated time (codes 31-43), and (B) give some credence to the need for smaller ratios for codes 42 and 43 over code 31. Further weights could be assigned to handicapping condition, age/grade, etc. as deemed appropriate. The number of minutes of service multiplied by the various weights could give a per pupil or per building score which could be divided by some constant to get the total staff for a given building. For example, if a building earned 6 certificated staff and twenty percent (20%) of the service needs were for code 31, then 1.2 certificated teachers could be assigned to perform that service.

Cost-effectiveness and soundness of programming based on needs of students go hand in hand and are interdependent. To be cost-effective, a model must first be programmatically effective. The individual needs data could help the district decide which service delivery options to try in a particular building.

The assumption drawn from the data efforts was that more "mainstream" services are needed and that those services are equivalent to approximately thirteen percent (13.62%) of the total special education time needed to support mainstreaming (total of percentage of time needed for codes 21-31, Table IV). Such services, which include aides, tutors, materials adaptation, and consultation (larger teacher/pupil ratios) would be less expensive than resource or self-contained models. Further, again looking at Table IV, almost twenty-three percent (22.74%) of the total special education time needed was for code 41 (supplemental special education using regular curriculum), which is a less restrictive service delivery system than a majority of the resource room programs currently used in the district. Therefore, teachers indicated that over one-third of the handicapped students in the district could have their needs met in less restrictive placements than was the current practice.

V. ALTERNATIVE SERVICE DELIVERY SYSTEMS

In an effort to move students into less restrictive placements and to provide more support for these mainstreamed students, two pilot projects were initiated last spring: a peer tutor program (pilot #1) at the high school level and a liaison teacher (pilot #2) model at the junior high level.

In Pilot #1, peer tutors were selected through an application process based on teacher recommendation and content area knowledge. They participated in 40 hours of training in classroom analysis and learning styles, behavior management, instructional methods and strategies, and communication and study skills. Students receiving the tutoring volunteered to be in the program and received service in one of two models: 1) in-class model where a tutor was assigned to work in a specific class during a designated period (e.g., third period Biology), 2) out-of-class model where the student received tutoring help outside of the class in which he/she was being tutored (e.g., tutored first period in resource room for a third period History class). Master sets of notes were taken in content classes on carbonized paper and delivered daily so the tutors had current information on the classes. Tutors were monitored by a supervising teacher.

In Pilot #2, the liaison special education teacher and counselor were assigned to two junior high schools. The team had regularly scheduled blocks of time at each school. Behaviorally disabled students, previously served in self-contained programs, were returned to their neighborhood schools to receive special education support. They attended both regular and special classes and received regularly scheduled counseling and small group instruction in communication skills with the liaison team. The team also worked with regular classroom teachers, parents and administrators in helping students succeed. Other special needs students as well as nonhandicapped students in the building participated in the communication skills class and received indirect services from the team.

The approaches proposed for the pilot projects this school year offered different opportunities to bridge the gap between the current part-time special classrooms and the regular classrooms. Three additional projects were identified, two at the secondary level and one at the elementary. Potential sites were identified and invited to apply.

Proposals for the three Pilot Project Models needed to address the following:

Staff

- a. Building administrators' support and planned involvement
- b. Commitment of building special education staff
- c. Involvement and commitment of other staff who would be directly involved
- d. Involvement of guidance team

Students

- a. Number of identified handicapped students who can be served
- b. Potential for other student who can be served

Parents

- a. Involvement and input from parents

Program

- a. How does the proposed model fit the unique characteristics of the students and staff at building site
- b. Long range application for implementation at other buildings
- c. How does it expand the options for instruction in the regular program
- d. How would this improve student self-concept and attitude
- e. How will it increase the range of services now offered without spending additional money
- f. How can present staff be utilized to facilitate the pilot

The applications were evaluated by a selection committee according to the following criteria:

1. Provides for more direct support for mildly handicapped students in the regular classroom.
2. Potential for positive impact on mildly handicapped students' self-concept and attitude.
3. Meets identified building needs.
4. Produces something which will help others carry out the same or similar plan in their building.
5. Benefits regular students.

As a result of this process, three new pilots were implemented in February. Pilot #3 involved the creation of a skills center at one of the high schools to serve mildly handicapped and high risk students in a cooperative teaching model. A number of instructional strategies are utilized to help handicapped and high risk students succeed in the regular classroom setting. These strategies include special education teachers team teaching with regular classroom and vocational teachers, individual and small group tutoring, counseling interventions, monitoring techniques, and the offering of alternative content courses.

Pilot #4 involved an elementary school where no part-time special education services are currently available. In this approach, the special education teacher provides small group instruction in reading and math within the regular classroom, provides a structured behavioral contract program for selected students, provides a structured group social/problem solving activity, provides adaptations of regular classroom materials, and consults with participating staff.

Pilot #5 focuses on developing new approaches to provide special education in the middle school. The resource room teacher team teaches with regular classroom teachers in the areas of language arts and reading. Mildly handicapped students previously served in a self-contained class are receiving instruction in the regular classroom with support from the special education teacher. In the area of reading, mildly handicapped students are enrolled in a regular reading class where the emphasis is on reading in the content areas.

VI. EVALUATION STRATEGIES/DATA

Individual evaluation plans were developed for each pilot based on input from the staff at each of the sites.

Pilot #1 (high school peer tutor)

Target Population: Tutors

1. Tutors evaluate content/organization of training sessions/manual
2. Supervisors' evaluation of tutor performance
3. Weekly log completed by tutor
4. Frequency/kind of monitoring given
5. Grade/absent data

Target Population: Tutees

1. Performance data: PRE/POST
 - 1.a. Target to whole class
 - 1.b. Target to control
 - 1.c. Target to random sample, other high schools
2. School Attitude Measure (SAM) PRE/POST
 - 2.a. Target to class (in-class model)
 - 2.b. Target to control (out-of-class model)
3. Consumer Satisfaction Survey
 - 3.a. Tutees perception of program/support

Target Population: Staff

1. Consumer Satisfaction Survey

Target Population: Parents

1. Consumer Satisfaction Survey

Other:

1. Documentation of:
 - A. Number of applicants for tutors
Number placed
 - B. Number of applicants/requests for tutoring
Number served
 - C. Kind of classes tutored for

Pilot #2 (junior high liaison team)

Target Population: Students

*Identified Students Receiving Full Service

1. Passage curriculum PRE/POST self report
2. SSCL PRE/POST
- *3. Attendance/suspension data (historical)
- *4. Report card comment codes (historical)
- *5. Achievement data
 - 5.a. Number of credits earned/garages (historical & comparison 1st/2nd quarter)
 - 5.b. Target to other classmates (1st/2nd quarter)
- *6. Individual/family counseling contacts

Target Population: Staff

1. SSCL on specific student (1st quarter only due to negative staff response to instrument)
2. Communication skills use check-list
3. Consumer satisfaction survey

Target Population: Parent

1. SSCL on their student
2. Consumer satisfaction survey

Pilot #3 (high school skills center)

Target Population: Students

*Identified B.D. students

- *1. Attendance/suspension data (historical)
- *2. Report card comment codes (historical)
3. Achievement data
 - 3.a. Number of regular classes taken/grades
 - 3.b. Grade data for team taught classes/comparison group
4. Number of students served by model
5. Individual/group counseling contacts
6. Consumer Satisfaction Survey

Target Population: Staff

1. Consumer Satisfaction Survey

Target Population: Parents

1. Consumer Satisfaction Survey

Pilot #4 (elementary)

Target Population: Students

1. Criterion referenced performance data PRE/POST
2. Monitoring charts with individual student's targets
3. Documentation of group/individual sessions with counselor
4. Number of students served and type of support

Target Population: Staff

1. Consumer Satisfaction Survey

Target Population: Parents

1. Consumer Satisfaction Survey

Pilot #5 (middle school)

Target Population: Students

1. Performance data
 - 1.a. Criterion Referenced Skill Data PRE/POST
 - 1.b. Grade Data; target to class
2. Number of students receiving support
3. Consumer Satisfaction Survey

Target Population: Staff

1. Consumer Satisfaction Survey

Target Population: Parents

1. Consumer Satisfaction Survey

By the end of the 1982-83 school year, it is expected that information collected regarding the five pilot projects will form the basis for recommendations for possible changes in special education for the 1983-84 school year which would be intended not only to improve the effectiveness of programs for mildly handicapped students, but also to benefit other students in the district.

Slide-Tape Presentation

VII SUMMARY

We need to identify effective strategies by which mildly handicapped students can be accommodated within the regular classroom setting. Deno (1970) purported that "the special education system is in a unique position to serve as a developmental capital in an overall effort to upgrade the effectiveness of the total public education effort." Deno further suggested that special education assume a role of turning over to the regular education mainstream whatever helpful technology it develops to improve educational opportunities for all students. This blending of the expertise of special and regular educators seems to be the key to the overall effectiveness of education for all students.

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